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Cooperative River Basin Studies:

Helping Planners

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Cooperative River Basin Studies:

Helping Planners

A case history

In 1977, the state of Oregon recognized a problem: How could the state plan the best way to meet its water quality goals? Such a plan is required of all the states under Section 208 of the Federal Water Pollution Control Act Amendments of 1972.

Section 208 deals with nonpoint source water pollution, that is, pollution that originates over a large area rather than at a specific point such as a sewer outlet.

Many nonpoint pollutants come from agricultural land. Eroded soil, for example, along with fertilizer and agri-



Proper planning can lead to harmonious multiple uses of our natural resources.

cultural chemicals, may be deposited as sediment in waterways and lakes and reservoirs.

Oregon's Soil and Water Conservation Commission knew where the state's 208 plans should concentrate, but it needed planning assistance. Specifically, the state needed a technical study that would provide alternative plans for meeting its water quality goals.

To be useful, the study would have to estimate the cost of carrying out each

alternative and measure its expected impacts on the state's economy and environment. By comparing the alternatives and getting wide public participation, the state could select the most acceptable plan.

Planning assistance built on sound technical information—that is what Oregon needed. To help meet this need, the state requested a USDA Cooperative River Basin Study coordinated by the Soil Conservation Service (SCS).

What is a river basin study?

A cooperative river basin study makes planning assistance available to federal, state, and local governments. The 208 planning assistance that Oregon needed is not the only type available; river basin studies are requested for a variety of reasons.

The result of the study is a set of alternative plans for meeting

- National objectives for economic development and environmental quality.
- Specific objectives of the agency that requested the study.

The scope of the study is established by these objectives. Priority is given to objectives relating to

- Nonpoint source pollution.
- Prime farmland preservation.
- Important wetlands preservation.
- Water conservation.

The areas covered by a river basin study range from a small sub-basin entirely within one county to a large basin that crosses state boundaries.

Guided by the national and local objectives, river basin specialists

- Inventory and appraise the land,



Many nonpoint pollution problems begin with erosion and continue with sedimentation of streams and destruction of fish habitat.



water, and related resources in the study area.

- Identify the problems, needs, and potential uses of these resources.
- Suggest alternative ways to use and manage the resources.
- Recommend projects and practices that will alleviate resource problems.
- Present alternative plans for meeting the objectives of the sponsors and the public.
- Describe the expected effects of each alternative on the economy, local people, and the environment.

After the sponsors analyze the alternative plans in the river basin report, they work with state and local agencies and citizen groups to prepare a final plan. USDA agencies provide technical assistance throughout planning.



Erosion-caused problems do not end on farms and in rivers. Sediment deposited on flood plains can destroy cropland and damage property.



Why is a river basin study needed?

As our population increases, so do our demands for food and fiber, raw materials, energy, recreation, housing, open space, and a cleaner environment. These demands compete for available natural resources. Some resources are no longer as plentiful as they once were: water, prime farmland, wildlife habitat, and fossil fuels, to name a few.

It is vital, then, that Americans plan the use of our resources in a rational, balanced way. But wise planning requires a solid foundation of accurate technical data on the current and projected availability and condition of these resources. River basin studies supply these data.



Who carries out the study?

The requesting agency has overall leadership of the study. It also encourages other interested agencies, organizations, and individuals to participate as needed.

SCS has the leadership and coordination roles in USDA. Other USDA agencies that participate are the Forest Service and the Economics, Statistics, and Cooperatives Service. Local, state, and other federal agencies may also participate.



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What information can a river basin study supply?

River basin studies yield many kinds of information, for example,

- Inventories and projections of flood problems.
- Erosion and sedimentation problems.
- Identification of important wetland areas.
- Forest resources, productivity, and management.
- Water supplies and quality.
- Farm population, income, and employment.
- Alternative solutions to agricultural nonpoint pollution.
- Effects of potential projects and programs.



If measures to control erosion and sedimentation are properly planned, water quality can be improved and preserved.

How is the information used?

The use of the information is limited only by the goals of the requesting agency and the other groups—public or private—that wish to use it. Using data from a river basin report,

- An international commission studied the effect of forestry practices on water quality in the Great Lakes.
- A regional water resources board recommended drainage and flood control for an area in New York that has high potential for farming.
- Five Utah counties cooperated to stop flooding.
- Louisiana planned how to develop the state's hunting and fishing more fully.
- Local people in the Chickasaw Basin in Tennessee and Mississippi got together to control erosion and stop flooding while establishing parks, fishing areas, and scenic trails.
- A small Illinois community planned a lake to supply its residents with water and included a beach,

boat launch, camping and picnic area, and access roads.

River basin studies also provide data used in

- State water plans.
- Environmental impact statements.
- Coastal zone management plans.
- Wild and Scenic River proposals.
- Water quality management plans.
- Water Resources Council activities.
- State, regional, and county land use plans.
- Long-range plans for conservation districts.
- Planning for Small Watershed and Flood Prevention projects.
- Flood insurance studies.
- Planning for Resource Conservation and Development measures.
- Forest management plans.
- Programs for wetlands preservation.
- Establishing environmental corridors and greenbelts.
- Preservation of unique or prime farmland.
- Preservation of historical or archeological sites.

Some of the benefits of using river basin data are...



Improved irrigation practices that help conserve water...



More productive woodland through improved management...



Increased opportunities for water-based recreation...

- Acquisition of water impoundment sites.
- Establishment of county conservation boards.
- Flood prevention.
- Development of state and local regulations on flood plain management, erosion and sedimentation control, and reclamation of strip-mined land.



Preservation of important wetlands.

Who may request a river basin study?

Assistance is available to federal, state, and local agencies; local soil and water conservation districts; communities; and regional planning boards.



How is assistance obtained?

Local groups can express their desire for a study to the governor, the appropriate state agency, or the local SCS office. The governor or a federal, state, or local agency can submit a written request for a cooperative study. The request is submitted to the SCS Administrator through the SCS state conservationist, whose name and address can be obtained from any local SCS office.

The state conservationist, who may help prepare the request, sends it with his comments to the Administrator for consideration. The request must

- Explain why the study is needed.
- Describe the basin.
- State the major problems and needs.
- Explain why USDA participation is needed.
- State the responsibility and authority of the requesting agency.

Proper flood control is a vital part of planning in a river basin. With good planning the water supply can be increased and can support many uses.



River basin studies provide planners and the public with the basic technical data they need to make informed decisions on land use.

- Describe the coordination expected with other federal, state, and local agencies.
- Describe the results expected from the study and the expected uses of the report.
- State the relationship of the proposed study to ongoing and completed river basin studies in the area.



Conservation districts use river basin study reports to develop long-range district plans for helping landowners.

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Where can I get more information?

More information about cooperative river basin studies is available at the office of your local conservation district or at any SCS office.

All programs of the U.S. Department of Agriculture are available to everyone without regard to race, creed, color, sex, or national origin.

March 1979

